## MARINE SAFETY MANUAL

- 3.A.2.b (5) Added "Guide for Electrical Installations on Merchant Vessels and Mobile Offshore Drilling Units", COMDTPUB P16700.4, NVIC 2-89 content to the Electrical Systems section
  - (6) Removed outdated parts of the Electrical Plan Review section
  - (7) Deleted Section 3.Q, Nuclear Systems, no longer relevant
  - (8) Deleted Section 3.D, Regulations and References, outdated information
  - c. Specific Changes. Cross-Referenced to Old-MSM IV Chapter 3

NOTE: "Previous MSM IV CH3" refers to sections as they existed in the version of MSM IV Chapter 3 that this edition is replacing (publication date unknown, last updated 27 June 1986)

- (1) MSM Vol IV, CH 3 Section i, Prologue
  - (a) Previous MSM IV Ch3 Sections: N/A, this is a new section
  - (b) Alterations: All new content, adapted from MSM Vol II Prologue
- (2) MSM Vol IV, CH 3 Section A, Engineering Scope and Program Interfaces
  - (a) Previous MSM IV Ch3 Sections: Adapted from previous MSM Vol IV, CH 3, Section A, Engineering Scope and Program Interfaces.
  - (b) Alterations:
    - i. Updated office designations (ex: Commandant (G-MSE)
       replaced Commandant (G-MTH-2))
    - ii. Updated Commandant (G-MSE-3) responsibilities
- (3) MSM Vol IV, CH 3 Section B, Plan Review
  - (a) Previous MSM IV Ch3 Sections: Adapted from previous MSM Vol IV, CH 3, Section C, Plan Review of Electrical Systems.
  - (b) Alterations:
    - i. Added Section 1, Plan Review of Mechanical Systems
    - ii. Updated CFR references in Section 2, Plan Review of Electrical Systems
    - iii. Removed Table 3-5, List of Electrical Hazard Group Classifications, more current version available in 46 CFR 151.05
- (4) MSM Vol IV, CH 3 Section C, Equipment
  - (a) Previous MSM IV Ch3 Sections:
    - i. MSM Vol IV, CH 3, Section E, Acceptable Equipment.
    - ii. MSM Vol IV, CH 3, Section F, Equipment Lists.
    - iii. MSM Vol IV, CH 3, Section K, Special Engineering Applications for Pollution Prevention.
    - iv. MSM Vol IV, CH 3, Section M, Special Equipment Approvals.
  - (b) Alterations:
    - i. 3.C.1.a transferred in FAQ from electrical section
    - ii. 3.C.1.b changed "need for factory inspections..." to "Coast Guard reserves the right... to conduct factory inspections."
    - iii. 3.C.1.b inserted information from Section 2 of NVIC 2-89, Meeting Referenced Standards
    - iv. 3.C.1.b (1) updated introduction to correct reference
      to fuses and hazardous area equipment
    - v. 3.C.1.c added CFR reference for independent testing lab

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- 3.A.2.c(4)(b)
- vi. 3.C.2.a and b: stated COMDTINST M16714.3 no longer published in hard copy
- vii. 3.C.2.c Added an example of an equipment approval number
- viii. 3.C.3.a(1) changed title 46 to title 33. Added type III statement.
- ix. Added 3.C.a(5) MSD's prior to 1/30/76
- x. 3.C.4.a stated that Affidavit system ended and incl ref to applicable FR.
- xi. 3.C.4.b(2) quick disconnect couplings are no longer reviewed by MSE-3
- xii. 3.C.4.c(2) changed IG to 1G and changed tank contents to "heaviest product carried".
- (5) MSM Vol IV, CH 3 Section D, Vessel Inspection Alternatives
  - (a) Previous MSM IV Ch3 Sections: This is a new section
  - (b) Alterations:
    - i. All new content, will be expanded on in Phase 2 of MSM Vol IV, Ch 3 Update.
- (6) MSM Vol IV, CH 3 Section E, Mechanical Systems
  - (a) Previous MSM IV Ch3 Sections:
    - i. MSM Vol IV, CH 3, Section J, Engineering Materials
    - ii. MSM Vol IV, CH 3, Section I, Boilers, Pressure Vessels, and Similar Equipment
    - iii. MSM Vol IV, CH 3, Section G, Piping Systems
    - iv. MSM Vol IV, CH 3, Section H, Specific Piping Systems
    - v. MSM Vol IV, CH 3, Section O, Steering Gear
  - (b) Alterations:
    - i. Updated responsible offices and their staff symbols.
    - ii. Deleted information no longer relevant.
- (7) MSM Vol IV, CH 3 Section F, Automation
  - (a) Previous MSM IV Ch3 Sections:
    - i. MSM Vol IV, CH 3, Section L, Automation.
  - (b) Alterations:
    - i. Updated to include 46 CFR Part 62
    - ii. Updated incinerator construction requirements
    - iii. Deleted outdated references to 46 CFR Part 63
- (8) MSM Vol IV, CH 3 Section G, Electrical Systems
  - (a) Previous MSM IV Ch3 Sections:
    - i. MSM Vol IV, CH 3, Section B, Overview of Electrical Systems.
  - (b) Alterations:
    - i. Inserted majority of NVIC 2-89, with some modifications. Major alterations to NVIC 2-89 content inserted:
      - a. Altered order of topics covered to correspond with Subchapter  $\ensuremath{\mathsf{J}}$
      - b. Corrected or removed outdated references
      - c. Deleted information superseded by recent CFR changes
      - d. Moved Section 2 of NVIC 2-89, 'Referenced Standards and Equipment Required to be Listed or Labeled' to Equipment section of MSM (3.C.1)
      - e. Revised Hazardous Location guidance, (NVIC 2-89 Section 7, MSM 3.G.6.d) to highlight differences between zonal and divisional classifications of hazardous areas